

PATENT  
120301-2382.AAMENDMENT

Kindly amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

IN THE CLAIMS:

Kindly amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

1.-10. (Cancelled).

11. (Currently Amended) Apparatus for hydrotreating a hydrocarbon feedstock comprising:

- a hydrocarbon feedstock supply,
- a desulfurization reactor fed by said supply,
- at least one separate hydrotreatment reactor,
- a fractionation unit disposed between the desulfurization reactor and the at least one hydrotreatment reactor,

said fractionation unit containing separation means comprising an internal partitioning structure defining two distinct injection zones in flow communication with a common upper vaporization zone,

an evacuation line for withdrawal downstream of light fractions from the vaporization zone,

said fractionation unit having separate lines for carrying respectively the effluents from the desulfurization reactor and the effluents from the at least one hydrotreatment reactor to the fractionation unit, with one of said lines carrying the effluents from the desulfurization reactor into one of said injection zones, and the other of said lines carrying the effluents from the at least one hydrotreatment reactor into the other of said injection zones,

- the fractionation unit having two different draw-off lines through which are removed, from the injection zones respectively, the liquid bottoms of the effluents of the desulfurization reactor that are passed on to the at least one hydrotreatment reactor and separately of the effluents from the at least one hydrotreatment reactor that are passed on downstream.

12. (Original) Hydrotreatment apparatus according to Claim 11, wherein the desulfurization reactor is a hydrodesulfurization or a sweetening reactor.

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13. (Currently Amended) Hydrotreatment apparatus according to Claim 11, further comprising a separation means; wherein the separation means is a vertical partition extending from a bottom of the fractionation unit.

14. (Previously Presented) Hydrotreatment apparatus according to Claim 13, wherein the partition consists of a cylindrical element disposed inside a vertical wall of the fractionation unit.

15. (Currently Amended) Hydrotreatment apparatus according to Claim 11, further comprising a separation means; wherein the separation means is horizontal extending from a vertical wall of the fractionation unit and wherein the separate lines carrying, respectively, the effluents from the desulfurization reactor and from the at least one hydrotreatment reactor end at different heights of the fractionation unit respectively above and below the separation means.

16. (Previously Presented) Hydrotreatment apparatus according to Claim 15, wherein the separation means is a tray provided with at least one riser.

17. (Previously Presented) Hydrotreatment apparatus according to Claim 11, wherein the at least one hydrotreatment reactor is a hydrodesulfurization reactor.

18. (Previously Presented) Hydrotreatment apparatus according to Claim 12, wherein the at least one hydrotreatment reactor is a hydrodesulfurization reactor.

19. (Previously Presented) Apparatus according to Claim 11, further comprising another reactor wherein said light fractions removed from the fractionation unit through the evacuation line are treated depending on the residual content of sulfur or aromatic compounds of said light fractions.

20. (Previously Presented) Apparatus according to Claim 17, further comprising another reactor wherein said light fractions removed from the fractionation unit through the evacuation line are treated depending on the residual content of sulfur or aromatic compounds of said light fractions.

21. (Previously Presented) Hydrotreatment apparatus according to Claim 13, wherein the partition consists of a cylindrical element disposed concentrically with a vertical wall of the fractionation unit.